

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

SOQUE HOLDINGS (BERMUDA) LTD.,

No. C 09-2651 MHP

Plaintiff,

MEMORANDUM & ORDER

v.

Re: Claim Construction

KEYSCAN, INC.,

Defendant.

On June 15, 2009, Soque Holdings (Bermuda) Ltd. (“Soque”) brought this action against Keyscan, Inc. (“Keyscan”) alleging infringement of U.S. Patent No. 5,499,108 (“the ‘108 Patent”). Now before the court are the parties’ claim construction briefs, filed pursuant to Patent Local Rule 4-5. Having considered the parties’ arguments and submissions, and for the reasons set forth below, the court construes the disputed terms as follows.

BACKGROUND

Claim 1 of the ‘108 patent recites a “system comprising a document driven scanning input device communicating with a computer,” ‘108 Patent at 23:27–28, in which the device comprises scanning means for generating image data of the document, *id.* at 23:29–32, upon the user’s placement of the document, *id.* at 23:33–38, and “means for displaying, in response to said placement, a plurality of user-selectable options for processing said image data.” *Id.* at 23:39–41. In other words, the specification discloses an invention wherein an input device automatically senses the insertion of a document into the device. The input device then scans the document and notifies

1 the computer, through an interrupt, about the scanned document. In the preferred embodiment, the
2 input device software then presents a list of options—e.g., save the image, print the image or fax the
3 image—to the user, which the input device software determines by ascertaining the capabilities of
4 other software resident on the computer. Upon selection of an option, the input device software then
5 executes the appropriate software.

6 Soque alleges that Keyscan markets scanners that: 1) detect the presence of documents
7 placed in the scanner through laser sensing technology; 2) upon detection, scan the document;
8 3) upon scanning, display an image of the document on the screen; and 4) thereafter offer the user a
9 variety of options for processing the scanned image. Docket No. 1 (Complaint) ¶¶ 24–26.

10 Keyscan’s scanners also allegedly allow for a default application, such as Microsoft Word, to
11 display a variety of options for processing scanned documents. Soque claims that Keyscan’s
12 invocation of third-party software subsequent to the scan infringes upon the ‘108 patent. *Id.* ¶ 27.

13 14 LEGAL STANDARD

15 I. Claim construction

16 Under *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 389–90 (1996), the court
17 construes the scope and meaning of disputed patent claims as a matter of law. The first step of this
18 analysis requires the court to consider the words of the claims. *Teleflex, Inc. v. Ficosca N. Am.*, 299
19 F.3d 1313, 1324 (Fed. Cir. 2002). According to the Federal Circuit, the court must “indulge a
20 ‘heavy presumption’ that a claim term carries its ordinary and customary meaning.” *CCS Fitness,*
21 *Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). To determine the ordinary meaning
22 of a disputed term, the court may review a variety of sources including the claims themselves, other
23 intrinsic evidence such as the written description and prosecution history, and dictionaries and
24 treatises. *Teleflex, Inc.*, 299 F.3d at 1325. The court must conduct this inquiry not from the
25 perspective of a lay observer, but rather “from the standpoint of a person of ordinary skill in the
26 relevant art.” *Id.*

1 Among the sources of intrinsic evidence, the specification is “the single best guide to the
2 meaning of a disputed term.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir.
3 1996). By expressly defining terms in the specification, an inventor may “choose[] to be his or her
4 own lexicographer,” thereby limiting the meaning of the disputed term to the definition provided in
5 the specification. *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 990 (Fed. Cir.
6 1999). In addition, “[e]ven when guidance is not provided in explicit definitional format, ‘the
7 specification may define claim terms by implication such that the meaning may be found in or
8 ascertained by a reading of the patent documents.’” *Irdeto Access, Inc. v. Echostar Satellite Corp.*,
9 383 F.3d 1295, 1300 (Fed. Cir. 2004) (quoting *Bell Atl. Network Servs., Inc v. Covad Commc’ns*
10 *Group, Inc.*, 262 F.3d 1258, 1268 (Fed. Cir. 2001)). “The specification may also assist in resolving
11 ambiguity where the ordinary and accustomed meaning of the words used in the claims lack
12 sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex,*
13 *Inc.*, 299 F.3d at 1325. However, the Federal Circuit has cautioned that the written description
14 “should never trump the clear meaning of the claim terms.” *Comark Commcn’s, Inc. v. Harris*
15 *Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (citation omitted); *see also Tate Access Floors, Inc. v.*
16 *Maxess Techs., Inc.*, 222 F.3d 958, 966 (Fed. Cir. 2000) (“Although claims must be read in light of
17 the specification of which they are part, . . . it is improper to read limitations from the written
18 description into a claim . . .”).

19 Likewise, the prosecution history may demonstrate that the patentee intended to deviate from
20 a term’s ordinary and accustomed meaning. *Teleflex, Inc.*, 299 F.3d at 1326. “Arguments and
21 amendments made during the prosecution of a patent application and other aspects of the
22 prosecution history, as well as the specification and other claims, must be examined to determine the
23 meaning of terms in the claims.” *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576
24 (Fed. Cir. 1995), *cert. denied*, 516 U.S. 987. “In particular, ‘the prosecution history (or file wrapper)
25 limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed
26 or disavowed during prosecution in order to obtain claim allowance.’” *Teleflex, Inc.*, 299 F.3d at
27 1326 (quoting *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985)).
28

1 The Federal Circuit revisited the basic approach to claim construction in *Phillips v. AWH*
2 *Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). Although *Phillips* consists largely of an
3 affirmation of ten years of claim construction jurisprudence, it provides at least two pieces of
4 additional guidance. Firstly, the Federal Circuit rejected a line of cases that tended to rely too
5 heavily upon dictionaries in construing disputed claim terms. *Id.* at 1320–21. Secondly, the Federal
6 Circuit emphasized that claim terms must be interpreted in light of their context, especially the
7 language used in other claims and the specification. *Id.* at 1321. Taken as a whole, *Phillips* appears
8 to signal a small retreat from formalism and bright-line rules in claim construction. As a result, the
9 court will focus primarily on the intrinsic record before it. Cases cited by the parties in support of
10 fixed “rules” of claim construction will accordingly be given somewhat less weight.

11 II. Mean-plus-function claims

12 A means-plus-function claim is “expressed as a means or step for performing a specified
13 function without the recital of structure, material, or acts in support thereof.” 35 U.S.C. § 112. A
14 claim recited in means-plus-function language “encompasses the corresponding structure and its
15 equivalents,” while a claim that recites the structure does not encompass the equivalents. *Festo*
16 *Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 589 (Fed. Cir. 2000) (en banc),
17 *rev’d on other grounds*, 535 U.S. 722 (2002). The term “means” is central to a means-plus-function
18 analysis. *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004)
19 (citing *CCS Fitness*, 288 F.3d at 1369). A claim limitation that actually uses the word “means”
20 invokes a rebuttable presumption that Section 112 applies. *Id.* at 1358. Conversely, a claim
21 limitation lacking the term “means” invokes a rebuttable presumption that Section 112 does not
22 apply. *Id.*

23 When a patent-drafter chooses to draft a patent claim in means-plus-function format, claim
24 construction rules differ from the rules used for other types of patent claims. Section 112 provides
25 that a means-plus-function claim “shall be construed to cover the corresponding structure, material,
26 or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112.

1 Construing means-plus-function claims is a two-step process. The first step is to identify the
2 claimed function. *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1333 (Fed. Cir. 2004). The
3 second step is to identify the corresponding structure in the specification. A means-plus-function
4 claim is limited to structures expressly disclosed in the specification and corresponding equivalents.
5 *Symbol Techs, Inc. v. Opticon, Inc.*, 935 F.2d 1569, 1575 (Fed. Cir. 1991). This means that the
6 entire patent specification must be consulted to determine the structure, material or acts
7 corresponding to the function recited in the claim.

8 When the specification discloses structure, it will be “deemed to be corresponding structure
9 if the specification clearly links or associates that structure to the function recited in the claim.”
10 *Kahn v. Gen. Motors Corp.*, 135 F.3d 1472, 1476 (Fed. Cir. 1998). The Federal Circuit has
11 explained that “[t]he price that must be paid for use of [the] convenience [of claiming in
12 means-plus-function format] is limitation of the claim to the means specified in the written
13 description and equivalents thereof. If the specification is not clear as to the structure that the
14 patentee intends to correspond to the claimed function, then the patentee has not paid that price but
15 is rather attempting to claim in functional terms unbounded by any reference to structure in the
16 specification. Such is impermissible under the statute.” *Med. Instrumentation & Diagnostics Corp.*
17 *v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir. 2003).

18 DISCUSSION

19 I. “user-selectable options for processing said image data”¹

20 Keyscan seeks the following construction: “Options presented to a user by the input device
21 software, one of which a user must select in order for the input device software to determine what is
22 to be done with the scanned image.” Soque seeks the following construction: “Options presented to
23 a user regarding a course of action to be taken with a scanned image, such as faxing, emailing,
24 printing, storing or performing word processing on a scanned image.” The parties’ argument
25 focuses on whether this claim term should be limited to require the input device software, as
26 opposed to any mine-run software, to present options to the user.

1 “User-selectable options” appears in every asserted claim. Keyscan’s basic argument, based
2 on the specification, is that in response to placement of a document in the input device, the input
3 device software presents the user with options that it determined are available on the host computer.
4 In response to the user’s selection, the input device software invokes the third-party software
5 application that corresponds to the user’s selection. In support of its argument, Keyscan focuses on
6 the preferred embodiment outlined in the patent specification. Soque, on the other hand, argues that
7 “user-selectable options” must be construed in accordance with the language in the claim limitations
8 themselves, and should not be limited by the specific embodiment identified in the patent
9 specification. Soque is correct.

10 The summary of the invention states: “As the term is used herein, an ‘paper input device’ is
11 a computer peripheral which senses the insertion of a document to be scanned, initiates a host
12 computer process, i.e., controls the host process by insertion of the paper and symbols on the paper,
13 scans the images and text on the paper, provides immediate user interface feedback while sending
14 the scanned data to the host for further electronic processing such as display, transmission, storage
15 or modification.” ‘108 Patent at 2:40–48. Although the preferred embodiment focuses solely on the
16 input device software, the summary eschews any such language. Instead, the paper input device
17 “provides immediate user feedback while sending the scanned data to the host for further electronic
18 processing.” *Id.* This demonstrates that the scope of the patent claims could be broader than the
19 preferred embodiment.

20 As discussed above, the specification discloses an invention wherein an input device
21 automatically senses the insertion of a document into the device, which device then scans the
22 document and interrupts the computer. In the preferred embodiment, the input device software then
23 presents a list of options to the user, and upon selection of an option, the input device software
24 executes the appropriate software. ‘108 Patent at 10:34–11:8, 15:7–16:9, 18:34–19:10, Figure 13B,
25 Figure 21B. Nowhere in the specification does the patentee evidence an intent to exclude an
26 interpretation whereby options are presented to the user by software other than the input device
27 software. A specific embodiment may not be read into the claim unless the patentee “intend[ed] for
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1 the claims and the embodiments in the specification to be strictly coextensive.” *Phillips*, 415 F.3d at
2 1323. Here, the preferred embodiment plainly does not “reveal an intentional disclaimer, or
3 disavowal, of claim scope.” *Id.* at 1316.

4 The patent’s plain language supports Soque’s construction, that the user-selectable options
5 need not necessarily be presented by the input device software. *Id.* at 1323 (“although the
6 specification often describes very specific embodiments of the invention, we have repeatedly warned
7 against confining the claims to those embodiments”). Thus, Soque’s construction is adopted:
8 “user-selectable options for processing said image data” is construed as “options presented to a user
9 regarding a course of action to be taken with a scanned image, such as faxing, emailing, printing,
10 storing or performing word processing on a scanned image.”

11 To the extent input device software is employed to display the user-selectable options, as in
12 the preferred embodiment, the patent specification allows the input device software to present
13 options that are features or functions present completely within third-party software applications
14 such as Microsoft Word. The patent specification contemplates that the input device software
15 “generates the menu options by checking the bulk storage memory device (typically a hard disk) and
16 the random access memory to determine what software packages are resident and then generates a
17 menu option for each capability of the host as represented by these software packages.” ‘108 Patent
18 at 15:36–42; *id.* at 18:45–51 (“The options displayed in the pop-up window depend upon the
19 software packages and circuit cards of the host computer. The available options are determined by
20 the input device software resident on the host at installation, and may be updated as new capabilities
21 are added to the host computer.”). The preferred embodiment uses a pop-up window or equivalent.
22 *Id.* at Fig. 21B, Box 296.² The specification, however, does not limit the “menu option” associated
23 with a software package to the simple invocation of the third-party software application. For
24 instance, the menu option need not simply state “Open Microsoft Word,” but can provide the user
25 with the option to “Print via Microsoft Word” or “Save using Microsoft Word.” Moreover, there
26 appears no limitation upon the input device software’s invocation of third-party software in order to
27 determine the capabilities of the third-party software. Consequently, in the preferred embodiment,
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1 user-selectable options may be presented to the user by the input device software subsequent to the
2 launch of third-party software.³

3 Keyscan, which argues essentially that this claim term be limited to the preferred
4 embodiment, must demonstrate that the patentee intended to deviate from this phrase's ordinary and
5 accustomed meaning. Keyscan first argues that the prosecution history demonstrates that the
6 patentee limited the claims only to options presented by the input device software. During
7 prosecution of the '108 patent, the patent examiner found that it was well known in the art to
8 "automatically do something with [a scanned] image," but the prior art did not disclose "the specific
9 means for displaying a plurality of user-selectable options for processing said image data, in
10 response to the placement of a document to initiate the drawing of the document into scanning
11 relationship with the scanner" Docket No. 39-1 (Godinez Dec.), Exh. D (Patent Reexamination) at
12 KeyScan422. This finding, however, does nothing to limit the scope of user-selectable options to be
13 only those options presented by the input device software itself. In January 1995, the patentee
14 introduced the term "user-selectable options" to require the display of user-selectable options in
15 response to placement of a document in the scanner. Specifically, independent claim 88, which
16 eventually issued as claim 1 of the '108 patent, was amended to include "means for displaying a
17 plurality of user-selectable options for processing said image data in response to placement of the
18 document by the user." *Id.*, Exh. B (Patent Application) at Soque273; *id.* at Soque345 (adding "in
19 response to said placement"). These amendments also do not limit the scope of user-selectable
20 options to be only those options presented by the input device software itself.

21 Keyscan next argues that the patent specification only discloses a "document-driven system"
22 wherein the input device and its software control the operations of a host computer to, among other
23 things, determine and present to a user options regarding what is to be done with scanned data. In
24 support of this argument, Keyscan cites solely to the preferred embodiment outlined in the patent
25 specification. *See, e.g.*, '108 Patent at 18:34–19:9 (describing sequence of events the input device
26 software follows in the preferred embodiment); *id.* at 10:52–55 (discussing alternatives the input
27 device software may present to the user in the preferred embodiment); *id.* at 15:36–42 (discussing
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1 how the input device software determines the universe of options to present to the user in the
2 preferred embodiment). None of these disclosures limit the patent to *require* use of the input device
3 software to display the user-selectable options. Keyscan is correct that the summary of the invention
4 states that “[s]pecial software in the input device . . . automatically carries out the desired processing
5 either by receiving a command from the user by manual pointing to menu selections presented to the
6 user by the software . . .” *Id.* at 2:55–60. However, the immediately preceding sentence states: “In
7 the preferred embodiment, the input device using scanning technology includes a scanning
8 mechanism.” *Id.* at 2:54–55. Keyscan’s attempt to limit this claim term in accordance with the
9 preferred embodiment is unavailing.

10 Keyscan’s reliance upon *Toro Co. v. White Consol. Indus.*, 199 F.3d 1295, 1300–01 (Fed.
11 Cir. 1999), is unpersuasive. There, the Federal Circuit found that the patent encompassed only the
12 “unitary structure” described in the preferred embodiment because “the specification describes the
13 advantages of the unitary structure as important to the invention” and because the structure was “not
14 simply the preferred embodiment; it [was] the only embodiment.” Neither situation applies here:
15 nowhere does the specification speak to the advantages associated with employing the input device
16 software, nor is presentation of options to the user through the input device software the only
17 embodiment—the patent specifically discloses symbol recognition as a method through which the
18 user may signal her desires regarding post-scan processing. Keyscan also argues that “[a]lthough
19 precedent offers assorted quotations in support of differing conclusions concerning the scope of the
20 specification, these cases must be viewed in the factual context in which they arose. Whether an
21 invention is fairly claimed more broadly than the ‘preferred embodiment’ in the specification is a
22 question specific to the content of the specification, the context in which the embodiment is
23 described, the prosecution history, and if appropriate the prior art . . .” *Wang Labs., Inc. v. Am.*
24 *Online, Inc.*, 197 F.3d 1377, 1383 (Fed. Cir. 1999). *Wang* is inapposite. Unlike *Wang*, the
25 prosecution history here does not demonstrate that the inventors intended to limit the patent to the
26 preferred embodiment. *Id.* at 1383–84.⁴

At bottom, Keyscan is arguing that Soque's construction provides a meaning broader than the meaning derived from the intrinsic evidence. *See Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1397 (Fed. Cir. 2008) (limiting invention based in part on use of the phrase "the present invention"). However, at no point here did the patentee explicitly or implicitly limit the claims through use of limiting language. Although the patentee explicitly described the preferred embodiment, the patentee declined to limit the invention to the preferred embodiment. *See* '108 Patent at 23:21–23 ("those skilled in the art will appreciate numerous modifications and enhancements which can be made without departing from the true spirit of the invention."). Consequently, Keyscan's arguments are rejected and Soque's proposed construction is adopted.

II. Means-plus-function claims

A. Claims 1 and 20

Claims 1 and 20 both require a computer comprising "means for displaying, in response to said placement, a plurality of user-selectable options for processing said image data." '108 Patent at 23:40–42, 25:13–16. As a threshold matter, the parties do not dispute that these claims are in means-plus-function format. Docket No. 38-1 (Claim Construction Statement) at 3. Neither party disputes that the construction of "user-selectable options," as construed above, must be included in the function of the "means for displaying." *Id.*

1. Function

The parties dispute the construction of "in response to said placement," which immediately follows the words "means for displaying." They do not dispute that the display must occur subsequent to placement of the document in the scanner, only whether the language expands the *function* from merely "displaying" to include both "displaying" and "responding." The plain language of the claim recites a means of "displaying" and does not include a means for "responding." Thus, the appositive "in response to said placement," placed within commas, describes the order of operations, not a separate means. Nonetheless, as appears to be agreed upon by the parties, it requires that the display occur after and in reaction to the placement of a document in the input device. Soque's proposed function would eliminate this requirement. This order of

1 operations, as expressly specified in the claim limitation, must be maintained because each claim
2 limitation must be given meaning. Thus, applying ordinary principles of claim construction to this
3 claim language, the function is: “‘in response to’ placement of a document in the input device,
4 displaying a plurality of ‘user-selectable options for processing image data’.”⁵ For the same reasons,
5 the function associated with “means, responsive to placement of a document by a user, for
6 drawing . . . ,” ‘108 Patent at 23:32–39, is: “‘in response to’ placement of a document in the input
7 device, drawing the document into ‘a scanning relationship with said scanning means’.”⁶

8 2. Structure

9 The main thrust of the parties’ dispute regarding corresponding structure for the “means for
10 displaying” is whether the specification discloses, as structure, any software other than the input
11 device software. Keyscan contends the patent should be limited to the display of options by the
12 input device software because that is the only structure disclosed in the patent, whereas Soque
13 contends that the structure can be any software, including third-party software.

14 Section 112, paragraph 6 was intended to allow the use of means expressions in patent claims
15 without requiring the patentee to recite in the claims all possible structures that could be used as
16 means in the claimed apparatus. *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1583 (Fed. Cir. 1997).
17 However, “the price that must be paid for use of that convenience is limitation of the claim to the
18 means specified in the written description and equivalents thereof.” *Id.*; *B. Braun Med., Inc. v.*
19 *Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997) (“We hold that, pursuant to this provision,
20 structure disclosed in the specification is ‘corresponding’ structure only if the specification or
21 prosecution history clearly links or associates that structure to the function recited in the claim. This
22 duty to link or associate structure to function is the quid pro quo for the convenience of employing
23 § 112, P 6.”). Thus, means-plus-function language “must set forth in the specification an adequate
24 disclosure showing what is meant by that language. If an applicant fails to set forth an adequate
25 disclosure, the applicant has in effect failed to particularly point out and distinctly claim the
26 invention as required by the second paragraph of section 112.” *In re Donaldson Co.*, 16 F.3d 1189,
27 1195 (Fed. Cir. 1994) (en banc).⁷

1 The court looks to the specification of the patent to determine the corresponding structure.
2 *Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1357 (Fed. Cir. 1999). Although
3 the corresponding structure should be limited to only that which is necessary to perform the recited
4 function, *Asyst Tech., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1371 (Fed. Cir. 2001), “a means clause
5 does not cover every means for performing the specified function.” *Laitram Corp. v. Rexnord, Inc.*,
6 939 F.2d 1533, 1536 (Fed. Cir. 1991). When only one embodiment of the invention is described in
7 the patent, “the corresponding structure is limited to that embodiment, . . . and its equivalents.”
8 *Nomos Corp. v. Brainlab USA, Inc.*, 357 F.3d 1364, 1368 (Fed. Cir. 2004) (citing *Intellectual Prop.*
9 *Dev., Inc. v. UA-Columbia Cablevision of Westchester, Inc.*, 336 F.3d 1308, 1319 (Fed. Cir. 2003)).

10 The structure associated with the display means in the ‘108 patent is disclosed in the patent
11 specification. Specifically, “[t]he software of the input device resident on the host also generates a
12 drop down menu 250 presenting options to the user regarding what should be done with the scanned
13 image. These menu options can be such things as ‘FAX this image’ as symbolized by icon 253 or
14 ‘Send this image as an E-mail message’ as symbolized by icon 255, or ‘Send this image to the laser
15 printer for printing’ as symbolized by icon 257 or ‘Paste this image into clipboard memory’ as
16 symbolized by icon 259, or ‘Archive this image on the bulk storage device’ as symbolized by icon
17 261. In some embodiments, there will be an option to ‘Perform word processing on this image after
18 performing optical character recognition on it in background mode’ etc. FIG. 17 shows a typical
19 menu dialog box that can be presented in embodiments where the user must manually make the
20 selection of what to do with the image.” ‘108 Patent at 10:43–58.

21 In the preferred embodiment, the input device software must first detect the capabilities of
22 other software resident on the host. Upon placement of a document in the input device, the input
23 device software displays user-selectable options that correspond to the detected capabilities.
24 According to the specification, “FIG. 17 represents a typical pop-up window in which the various
25 menu options appear. The input device software resident in the host automatically generates the
26 menu options by checking the bulk storage memory device (typically a hard disk) and the random
27 access memory to determine what software packages are resident and then generates a menu option
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1 for each capability of the host as represented by these software packages.” ‘108 Patent at 15:34–42;
2 *id.* at 18:45–51 (“The options displayed in the pop-up window depend upon the software packages
3 and circuit cards of the host computer. The available options are determined by the input device
4 software resident on the host at installation, and may be updated as new capabilities are added to the
5 host computer.”). No other structure, save the input device software disclosed as the preferred
6 embodiment, is disclosed in the patent specification.

7 Soque does not argue that the patent specification discloses other structures. Instead, it
8 claims that the structure necessary for display means is simply the algorithm that the computer must
9 run to physically display pixels on a computer screen. This argument misses the mark, as such a
10 construction would lead to an impermissible functional claim unbounded by any reference to
11 structure in the specification. *Med. Instrumentation & Diagnostics Corp.*, 344 F.3d at 1211. There
12 is no disclosure of structure in the patent specification which supports the conclusion that this
13 means-plus-function claim encompasses *all* displays of user-selectable options. Soque’s
14 construction is therefore rejected. Consequently, the structure disclosed in the patent specification
15 includes input device software that determines and displays “user-selectable options for processing
16 said image data,” as described in the ‘108 patent specification at 15:34–42, 18:45–51, 10:43–58 and
17 Figure 17.⁸ The display means is limited to this corresponding structure and equivalents thereof.

18 Although unclear, Soque seems to be arguing that it would be apparent to one skilled in the
19 art at the time that “displaying” user-selectable options can be accomplished via the use of any
20 software. The specification does note that the input device software need not always display the
21 scanned image, but that it may be “shunted” to other software. ‘108 Patent at 18:51–57 (“In the
22 preferred embodiment, the incoming data is also displayed in a pop-up window, but in other
23 embodiments, the incoming data may be shunted directly to whatever software package is to process
24 it or directly into a file in random access memory or on an internal or external bulk storage device
25 without display in a pop-up window.”). Soque may be claiming that the lack of limitations
26 regarding what third-party software may do once the data is shunted to it demonstrates that the use
27 of third-party software to display would be apparent to one skilled in the relevant art. However, no
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1 display of image data, let alone user-selectable options, by third-party software is contemplated by
2 the “shunted” language. This argument therefore broadens the corresponding structure beyond what
3 is disclosed in the specification and prosecution history. To the extent Soque’s argument relates to
4 equivalence, it is premature.

5 Soque also argues that the novelty of the ‘108 patent is its “specific means for displaying a
6 plurality of user-selectable options for processing said image data, in response to the placement of a
7 document to initiate the drawing of the document into scanning relationship with the scanner.”
8 Patent Reexamination at KeyScan422. It claims this novelty does not dissipate if third-party
9 software, as opposed to the input device software, is the structure used to display the plurality of
10 user-selectable options. This argument, regarding equivalence, is premature; consequently, the court
11 expresses no opinion on this issue and leaves it for the infringement phase of this action.

12 B. Claims 2 and 5

13 Claims 2 and 5 of the ‘108 patent include the following limitation: said computer further
14 comprises “means for displaying a visual representation of said image data” generated in response to
15 said placement. ‘108 Patent at 23:42–45, 23:54–57. The parties agree that the function is defined
16 as: “displaying a visual representation of the ‘image data’ (as agreed upon).” Claim Construction
17 Statement, Exh. A (Disputed Terms) at 8. The parties again disagree as to whether the input device
18 software installed on the computer is the structure that must perform this “displaying” function.
19 ‘108 Patent at 16:57–63 (“input device software resident on the host will then cause a pop-up
20 window to appear on the screen where the image of the scanned document appears.”); *id.* at
21 18:51–52 (“A typical pop-up window or user menu options is shown in FIG. 17”). Again, with
22 respect to display of the scanned image, no other software other than the input device software is
23 disclosed in the patent specification, and Soque again claims an input device software limitation
24 would impermissibly limit the scope of the claim to the preferred embodiment. As discussed above,
25 Keyscan’s proposed corresponding structure, which relies upon the specification for the disclosure,
26 must be adopted. The corresponding structure thus includes input device software that causes the
27 display of an image of the scanned document, as described in the specification at 16:57–63,
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1 18:51–52 and Figure 17.⁹ The display means is limited to this corresponding structure and
2 equivalents thereof. Although there is no disclosure of “display” by other software, third-party
3 software may “process” the scanned image. *Id.* at 18:51–57. To the extent Soque claims processing
4 is akin to displaying, its argument is premature.

5 C. Claims 4 and 21

6 Claims 4 and 21 of the ‘108 patent recite an additional limitation that the computer comprise
7 “means for establishing which option has been selected by the user and for invoking a process
8 corresponding to the option selected by the user” for processing said image data. *Id.* at 23:49–53,
9 25:27–20. Ordinary principles of claim construction govern interpretation of this claim language;
10 thus, the function is: “establishing the user’s selection of an option and invoking a process
11 corresponding to the user’s selected option.” The parties again dispute whether the “establishing”
12 and “invoking” must be performed by the input device software, even though no structure other than
13 the input device software is disclosed in the patent specification. The specification states that
14 establishing which option has been selected is typically “done by processing a mouse click on a
15 menu option in a dialog box such as the that shown in FIG. 17” and that the input device software’s
16 invocation of a process is “the process of translating the user input command regarding what is to be
17 done with the incoming data into the appropriate commands to invoke the software package capable
18 of doing the selected processing.” *Id.* at 18:58–67. Soque suggests that input device software is not
19 necessary to perform the recited function. Soque may be correct if third-party software is considered
20 equivalent to input device software; however, in order to determine the structure of a means-plus-
21 function claim, the court must rely upon the specification. *Smiths Indus. Med. Sys., Inc.*, 183 F.3d at
22 1357; *Nomos Corp.*, 357 F.3d at 1368. The structure here thus includes input device software that
23 responds to the user’s selection by initiating a software package corresponding to the user’s selected
24 option, as described in the specification at 18:58–67 and Figure 17.¹⁰ The establishing means and
25 invoking means are limited to this corresponding structure and equivalents thereof.

1 D. Claim 9

2 The parties put forth identical arguments regarding claim nine of the ‘108 patent, which
 3 recites “means for displaying a plurality of options periodically polls said input device to determine
 4 whether a document has been placed by a user.” ‘108 Patent at 24:8–11. The parties agree that the
 5 function is: “periodically polling (i.e., actively checking the state of an indicator) the input device to
 6 determine if a document has been inserted by a user.” Disputed Terms at 8. The structure identified
 7 in the specification discloses that “the input device software resident on the host can poll the input
 8 device periodically to determine if a paper has been input for scanning.” ‘108 Patent at 11:18–23.
 9 For the same reasons as above, the structure thus includes input device software that “periodically
 10 polls”¹¹ the input device, as described in the specification at 11:18–23.¹² The displaying means in
 11 this claim is limited to this corresponding structure and equivalents thereof.

12 III. Claims 26 and 32

13 Claims 26 recites a “computer displaying, in response to the scanner sensing a document, a
 14 plurality of user-selectable options for processing image data from said scanner.” *Id.* at 25:40–45.
 15 Similarly, claim 32 recites a “computer displaying, in response to said placement, a plurality of user-
 16 selectable options for processing said image data.” *Id.* at 26:1–4. Keyscan argues that both of these
 17 claims should be construed as means-plus-function claims because “computer” is a generic term.
 18 These claims do not use traditional “means” language; consequently, they are presumptively not
 19 means-plus-function limitations.

20 Soque contends that the term “computer” is not a generic term, rather it denotes a particular
 21 type of device with a generally understood meaning in the mechanical arts, comparable to terms that
 22 the Federal Circuit has found sufficiently definite. For instance, Soque claims that in *Linear*
 23 *Technology Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1320 (Fed. Cir. 2004), the Federal Circuit
 24 held that the claim term, “circuit,” standing alone, sufficiently connoted structure. Soque is wrong.
 25 In *Linear Technology*, the Federal Circuit specifically relied on the “recitation of the respective
 26 circuit’s operation in sufficient detail to suggest structure to persons of ordinary skill in the art.” *Id.*
 27 at 1320–21. There, “[t]he contextual language describe[d] the objective of the ‘circuit,’ ‘monitoring
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1 a signal from the output terminal,’ and the desired output of the ‘circuit,’ ‘generat[ing] a first
2 feedback signal.’” *Id.* at 1320. This structure, recited in the claim limitation, saved the claim from
3 being treated as a means-plus-function claim. Soque claims sufficient structure is disclosed here
4 because the limitations of claims 26 and 32 both state that the computer: 1) communicates with the
5 scanner; and 2) displays user-selectable options. Neither limitation, however, states how the
6 computer communicates with the scanner, or how the computer determines which user-selectable
7 options to display. Soque’s other support is similarly unpersuasive. In *Personalized Media*
8 *Comm’ns v. ITC*, 161 F.3d 696, 704–05 (Fed. Cir. 1998), the court held that “detector” recited
9 sufficient structure because the term “had a well-known meaning to those of skill in the electrical
10 arts connotative of structure, including a rectifier or demodulator.” *Id.* The court said nothing about
11 the term “computer.” The same goes for *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580
12 (Fed. Cir. 1996), which construed the term “detent mechanism.”

13 Keyscan contends the presumption—that claims 26 and 32 are not means-plus-function
14 claims—is overcome because the term “computer displaying” does not provide a definite structure,
15 but rather refers to a generic computer and describes the computer purely by its function. If the
16 claims were computer-implemented means-plus-function claims, they would have to disclose
17 enough of an algorithm to make them understandable. Specifically, “[i]n cases involving a
18 computer-implemented invention in which the inventor has invoked means-plus-function claiming,
19 [the Federal Circuit] has consistently required that the structure disclosed in the specification be
20 more than simply a general purpose computer or microprocessor.” *Aristocrat Tech. Austl. Pty Ltd. v.*
21 *Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). This is because “[f]or a patentee to claim a
22 means for performing a particular function and then to disclose only a general purpose computer as
23 the structure designed to perform that function amounts to pure functional claiming. Because
24 general purpose computers can be programmed to perform very different tasks in very different
25 ways, simply disclosing a computer as the structure designated to perform a particular function does
26 not limit the scope of the claim to ‘the corresponding structure, material, or acts’ that perform the
27 function, as required by section 112 paragraph 6.” *Id.*; *Finisar Corp. v. DirectTV Group, Inc.*, 523
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1 F.3d 1323, 1340–41 (Fed. Cir. 2008) (a computer-implemented means-plus-function claim must
 2 disclose enough of an algorithm to make it understandable); *NetMoney, Inc. v. Verisign, Inc.*, 545
 3 F.3d 1359, 1367 (Fed. Cir. 2008). A patent owner, however, may express the algorithm in “any
 4 understandable terms.” *Finisar Corp.*, 523 F.3d at 1340–41.

5 A reference to a “computer” provides no basis to distinguish the structure from any other
 6 general purpose computer; thus, “computer” does not adequately describe a specific structure.
 7 *Aristocrat Tech. Austl. Pty Ltd.*, 521 F.3d at 1333; *Finisar Corp.*, 523 F.3d at 1340–41; *NetMoney,*
 8 *Inc.*, 545 F.3d at 1367. The same logic applies here—if “computer” is insufficient structure for a
 9 “means” limitation, the naked term “computer” cannot describe sufficient structure when recited
 10 directly in the claim limitation. An algorithm of some nature—that discloses how the plurality of
 11 user-selectable options is generated—is necessary to save this claim from indefiniteness. *Rhine v.*
 12 *Casio, Inc.*, 183 F.3d 1342, 1345 (Fed Cir. 1999) (“claims should be so construed, if possible, as to
 13 sustain their validity”). Here, the language of claim 32 is identical to the language in claim 1, except
 14 that “means for” has been replaced with “computer.” Since no corresponding structure is taught by
 15 claim 32, the claim cannot escape means-plus-function status. Claim 26 suffers from the same flaw.
 16 Accordingly, these claims must be construed as means-plus-function claims.

17 The function for claim 26 is: “‘in response to’ placement of a document in the scanner,
 18 displaying a plurality of ‘user-selectable options for processing image data’.”¹³ The structure is
 19 identical to that of claims 1 and 20 discussed above. Similarly, the function and structure for claim
 20 32 is identical to that of claims 1 and 20 discussed above.

21 IV. Claim 22

22 Claim 22 of the ‘108 patent recites an additional limitation requiring that the “means for
 23 sensing respond[] to insertion of the document into said input device by user.” ‘108 Patent at
 24 25:20–22. Keyscan argues that this claim is indefinite under paragraph two of 35 U.S.C. section 112
 25 because it does not identify how or what the means for sensing does to “respond” to insertion of the
 26 document. The means for sensing, however, “responds” to the insertion of the document by sensing
 27 the document. The patent specification discloses that “[t]he input device 214 uses one or more paper
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sensors such as sensors 222 to sense the insertion of the document to be scanned into the input device 214. These paper sensors generate a signal which triggers the scanning mechanism in the input device to start drawing the document” *Id.* at 10:28–34. Thus, the function is: “sensing the insertion of a document into the input device” and the corresponding structure includes paper sensors, as described in the specification at 10:28–34. The sensing means in this claim is limited to this corresponding structure and equivalents thereof. This construction does not necessarily make this claim redundant with Claim 20, which recites a “means for sensing placement of a document by a user,” *id.* at 25:10, because there may exist structures that sense placement without involving paper sensors.

CONCLUSION¹⁴

The terms in dispute are construed as follows:

Term	Construction
<u>All claims</u> : “user-selectable options for processing said image data”	“options presented to a user regarding a course of action to be taken with a scanned image, such as faxing, emailing, printing, storing or performing word processing on a scanned image.”
<u>Claims 1 and 20</u> : “means for displaying, in response to said placement, a plurality of user-selectable options for processing said image data”	<p><u>Function</u>: “‘in response to’ placement of a document in the input device, displaying a plurality of ‘user-selectable options for processing image data’.”</p> <p><u>Structure</u>: input device software that determines and displays the “user-selectable options for processing said image data”</p>

<p><u>Claim 1</u>: “means, responsive to placement of a document by a user, for drawing the document into scanning relationship with said scanning means”</p>	<p><u>Function</u>: “‘in response to’ placement of a document in the input device, drawing the document into ‘a scanning relationship with said scanning means’.”</p> <p><u>Structure</u>: ‘document sensors,’ a program-driven microprocessor and stepper motor and rotors of an input device</p>
<p><u>Claims 2 and 5</u>: “means for displaying a visual representation of said image data”</p>	<p><u>Function</u>: not in dispute</p> <p><u>Structure</u>: input device software that causes the display of an image of the scanned document</p>
<p><u>Claims 4 and 21</u>: “means for establishing which option has been selected by the user and for invoking a process corresponding to the option selected by the user”</p>	<p><u>Function</u>: “establishing the user’s selection of an option and invoking a process corresponding to the user’s selected option”</p> <p><u>Structure</u>: input device software that responds to the user’s selection by initiating a software package corresponding to the user’s selected option</p>
<p><u>Claim 9</u>: “means for displaying a plurality of options periodically polls said input device to determine whether a document has been placed by a user”</p>	<p><u>Function</u>: not in dispute</p> <p><u>Structure</u>: input device software that “periodically polls” the input device</p>
<p><u>Claim 26</u>: “computer displaying, in response to the scanner sensing a document, a plurality of user-selectable options for processing image data from said scanner”</p>	<p><u>Function</u>: “‘in response to’ placement of a document in the scanner, displaying a plurality of ‘user-selectable options for processing image data’”</p> <p><u>Structure</u>: identical to that of Claims 1 and 20 above</p>

<p><u>Claim 32</u>: “computer displaying, in response to said placement, a plurality of user-selectable options for processing said image data”</p>	<p><u>Function</u>: identical to that of Claims 1 and 20 above</p> <p><u>Structure</u>: identical to that of Claims 1 and 20 above</p>
<p><u>Claim 22</u>: “means for sensing responds to insertion of the document into said input device by user”</p>	<p><u>Function</u>: “sensing the insertion of a document into the input device”</p> <p><u>Structure</u>: paper sensors</p>

IT IS SO ORDERED.

Dated: June 4, 2010



 MARILYN HALL PATEL
 United States District Court Judge
 Northern District of California

ENDNOTES

1. There is agreement amongst the parties that this term is not subject to paragraph 6 of 35 U.S.C. section 112.

2. The image associated with the scan may or may not be displayed alongside the “user-selectable options.” ‘108 Patent at 18:51–57 (“In the preferred embodiment, the incoming data is also displayed in a pop-up window, but in other embodiments, the incoming data may be shunted directly to whatever software package is to process it or directly into a file in random access memory or on an internal or external bulk storage device without display in a pop-up window.”).

3. The court expresses no opinion on whether the mere invocation of third-party software in response to a scan constitutes the display of user-selectable options by the input device software, and leaves that question for the infringement phase of this action.

4. Keyscan cites the parent application of the ‘108 patent in support of its construction; however, it provides no authority that the parent application is part of the intrinsic record upon which the court may rely. Moreover, Keyscan does not cite any authority that prohibits a patentee from later seeking to expand upon claims specified in the parent application.

5. The construction of “in response to” is agreed upon by the parties and “user-selectable options for processing image data” is construed above.

6. The parties do not dispute that the corresponding structure includes “document sensors,” a program-driven microprocessor, and stepper motor and rotors of an input device, and equivalents thereof. Claim Construction Statement, Exh. A (Disputed Terms) at 2. The construction of “document sensors” and “a scanning relationship with said scanning means” is agreed upon by the parties. *Id.*

7. Much of Keyscan’s support fails to discuss the scope encompassed by the disclosed structure in a means-plus-function claim limitation; instead, it discusses instances where no structure was disclosed. See *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1114 (Fed. Cir. 2002) (“the specification discloses no structure that corresponds to the claimed function” which “renders the claim, and the claims depending from it, invalid for indefiniteness”); *Finisar Corp. v. DirectTV Group, Inc.*, 523 F.3d 1323, 1340–41 (Fed. Cir. 2008) (claims invalid for indefiniteness because the patent specification did not set forth sufficient structure corresponding to the means because the specification disclosed little structure and merely restated the function); *Aristocrat Tech. Austl. Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008) (patent specification disclosure of a “standard microprocessor” with “appropriate programming” was not a sufficient disclosure of structure to support the means clause because the patent’s equations, figures and other language merely described the claimed functions or the result of carrying out the functions).

8. The parties do not dispute that the structure must include a display and a microprocessor.

9. The parties do not dispute that the structure must include a display and a microprocessor.

10. The parties do not dispute that the structure must include a mouse or keyboard, and a microprocessor.

11. The construction of “periodically polls” is agreed upon by the parties.

12. The parties do not dispute that the structure must include a display and a microprocessor.

1 13. The construction of “in response to” is agreed upon by the parties and “user-selectable options
2 for processing image data” is construed above.

3 14. Keyscan asserts that the terms “document-driven scanning input device” and “document-driven
4 system,” both of which appear in preambles, should be construed as claim limitations. If the preamble
5 includes language added to the preamble to distinguish over the prior art, the preamble should be treated
6 as a claim limitation. *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1347 (Fed. Cir. 2002). Soque does
7 not oppose this argument. There is no dispute that this language was added during the prosecution of
8 the ‘108 patent to overcome prior art. Thus, these preamble terms are construed as claim limitations;
9 however, it appears that these terms are redundant with other limitations found in the claims.
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